OFFICE OF MANNED SPACE PLIGHT

M-D ML

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APOLIO APPLICATIONS
PROGRAM DIRECTIVE NO. 12

TO

Distribution

FROM

DIRECTOR, APOLLO APPLICATION

SUBJECT: Prelaunch Checkout and Launch of Center Developed (In-House)
Flight Hardware for the Apollo Applications Program

I. PURPOSE:

This directive defines center responsibilities and functions required to accomplish prelaunch checkout and launch of Apollo Applications flight hardware that is developed in-house by MSFC or MSC.

II. SCOPE:

This directive applies to all NASA personnel engaged in prelaunch and launch activity for AAP flight hardware that has been developed in-house by MSFC or MSC.

III. BACKGROUND:

In previous Manned Space Flight programs the flight hardware development contractor has performed prelaunch and launch operations under direction and control of KSC. In AAP, where MSFC and MSC are developing flight hardware in-house without the support of a prime contractor, MSFC and MSC personnel may perform prelaunch and launch operations under the operational direction and control of KSC. If MSFC or MSC decide to utilize this option, the following paragraphs defining center responsibilities and functions apply.

This directive does not modify or affect the functions and responsibilities of the Manned Space Flight centers or their respective contractors as presently defined for the preparation and launch of Apollo/Saturn space vehicles at KSC.

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IV. CENTER RESPONSIBILITIES:

MSC and MSFC, as development centers, are responsible for design, development, fabrication, qualification, acceptance test and delivery of Apollo Applications spacecraft and experiment carrier, assigned experiments and associated ground support equipment.

KSC is responsible for the development and operation of launch and industrial facilities and associated ground support equipment required to support the Apollo Applications Program, and the assembly, test, inspection, checkout and launch of Apollo Applications space vehicles at KSC. In fulfilling these responsibilities, the Kennedy Space Center will, if requested by a Development Center, utilize the Development Center's personnel for prelaunch and launch operations. In these cases, the Development Center group assigned to perform prelaunch and launch operations on their flight hardware will be directly responsible to KSC operational direction.

V. CENTER FUNCTIONS:

- 1. The Development Center group performing prelaunch and launch operations at KSC will, for their flight hardware, be called upon to perform, but not be limited to, the following functions:
 - a. Coordinating on IRN/ICD verification for each facility, launch complex area and support system which requires modification or engineering change.
 - b. Preparing test and checkout plans.
 - Preparing test and checkout procedures.
 - d. Preparing operational and inspection procedures.
 - e. Preparing test operations schedules.
 - f. Conducting prelaunch and launch operations.
 - g. Preparing post launch reports.

All documentation prepared by the Development Center group shall require KSC approval before implementation.

2. KSC shall appoint the test conductors for all integrated test operations. The Development Centers will submit the name of the Test Conductor for their portion of the integrated test operation.



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- 3. KSC shall provide to Development Center personnel performing launch operations base support normally supplied by KSC to major flight hardware development contractors.
- 4. The Development Center shall appoint a Senior Representative for each major flight hardware element which is to be checked out by their personnel.
- 5. KSC shall determine the manning schedule of the Development Center group required for the conduct of operations at KSC in coordination with the Development Center Senior Representative.
- 6. KSC will provide operational management direction to the Senior Representative and operational test direction to the Test Conductor of the Development Center's group at KSC.
- 7. Assignment, by name, of individuals to perform a specific task will be the responsibility of the Development Center's Senior Representative.
- 8. Development Center Subcontractors, if operating as part of the Development Center group at KSC, will remain under the direction of the Development Center.
- 9. During prelaunch and launch operations KSC has primary responsibility for reliability, quality and safety. The Development Center group will support KSC in the same manner a major contractor would support KSC in accomplishing these functions.
- 10. KSC quality control and engineering personnel shall verify that configuration is maintained in accordance with approved Development Center's specifications and drawn is.
- 11. KSC shall make the final determination that the Development Center group operations at KSC are safe and that the test and checkout procedures are adequate, safe, and in accordance with MSC and MSFC test and checkout requirements, specifications and criteria.
- 12. KSC shall have final approval of the adequacy of all test results thereby assuring that the test results are within the criteria established by the Development Centers.

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- 13. KSC shall provide personnel to monitor test and checkout, provide quality control and inspection functions, and integration activities to insure operations are conducted by the Development Center group at KSC in accordance with approved procedures and program requirements.
- 14. The Development Center group at KSC shall prepare failure reports in accordance with KSC procedures.
- 15. Daily scheduling of all operations will be the responsibility of KSC.

VI. LIMITATIONS:

- 1. Administrative controls and procedures over the Development Center group will be retained by the respective Center to which personnel are permanently assigned.
- 2. Assigned Development Center personnel will be required to adhere to existing KSC safety and security policy and regulations.
- 3. Development Center Subcontractor personnel, while operating at KSC, will be subject to same controls and regulations as those of Development Center group.

VII. <u>IMPLEMENTATION/DEVIATIONS</u>:

- 1. This directive is effective immediately.
- 2. Requests for revisions to this directive shall be submitted to the Apollo Applications Program Director.